darker brown depressions. The tongue-case was a sharp ridge extending to the apex of the wing-cases. At its base, on each side, was a dark, rough tubercle; on each eye-cover was another; and on the apex of the head another. The anal hook was long and pointed, with a little spur near the tip.

Caroline G. Soule.

On the food-habit of Telea polyphemus.—On June 10th emerged in one of my boxes a ♀ *Telea polyphemus* of normal size and specially brilliant coloring. Its larval history was an experiment in food. The larva was found just before the third moult, on a small oak tree. Its food was varied every day, and consisted of the following leaves, given in the following order:—

Oak, maple, willow, pine, white birch, apple, chestnut, moosewood, wild grape, poplar, walnut, elm, cherry, and then began with oak again. The only leaf it refused was sassafras.

Chestnut, pine, and wild grape were new to me as food-plants of *T. polyphemus* and were suggested by finding larvae on them several times last summer.

The larvae on pine were especially large and clear in color; those on wild grape, markedly smaller. *Caroline G. Soule.*

Recent literature. — Mr. J. W. Tutt, who edits a journal whose special function is to record all sorts of variation in insects has just published the first volume (16, 164 pp.) of "The **British Noctuae** and their varieties" in which over 100 species and an enormous number of varietal forms are described and named; scarcely a single species escapes division, and some show ten or fifteen varieties (*Apamea didyma* for instance), while a distinction is further made between varieties and subvarieties. Only the imago is considered. A large amount of the material is new, but the author has carefully collated all fragmentary notes in the literature of the subject. In the introduction, which treats of variation in Lepidoptera generally, its nature, extent and probable causes, no reference is made to the claim the author elsewhere refers to (Ent. rec., 1, 55-56) that melanism has in some instances become a prevailing feature in those parts of England where manufacturing plants have given a grimy aspect to nature. If this be really true, and it would seem to be difficult to prove incontestably, then natural selection by elimination of the unfittest has certainly produced a sensible degree of protective mimicry within recent historic times.

A painstaking, detailed account of the **postembryonal development, habits, and anatomy of Encyrtus fuscicollis** has just been given by Dr. E. Bugnion in the Recueil zoologique suisse, accompanied by half a dozen folding plates. The species investigated is claimed to be parasitic on different caterpillars, and among others on a Hyponomeuta attacking the spindle tree in which the author studied them. He raised 21 different lots, and they usually yielded males or females exclusively, and in half the other times one sex was in excessive abundance. This Encyrtus appears to lay its eggs (50–129) at one thrust in the form of a single chain which floats in the perivisceral cavity. At the end of the embryonal period, or rather after the first moult, the larvae pierce this tube, and live on the lymph of the host till they are ready for their change, when they devour the viscera, form separate cocoons which pack the body of the host to the utmost, and appear in the imago state in about three weeks; they at once pair. Whether they are double brooded and in the second generation infest some other insect is still a question; if not, the maintenance of the species depends on the life of fertilized females from early in August to sometime in April or May of the succeeding year.

The most considerable and valuable work that has appeared for fifteen years on the tertiary insects of Europe, has just been published at Strassburg as part of the Abhand-

lungen zur geologischen specialkarte von Elsass-Lothringen. It is on the insects of the middle oligocene of Brunstatt, Alsatia, by Dr. B. Foerster, and describes 159 species, all but one belonging to the Coleoptera, Hemiptera, Diptera, and Hymenoptera to name them in the order of their abundance. Six excellent plates, including 171 figures, all drawn by the author, accompany the work. Two of the beetles, a Dorcatoma and a Bruchus, the latter rather imperfect, presented no features by which they could be distinguished from living European species. The mass of the species are of a small size. Interesting comparisons are instituted with the insects of other tertiary localities.

Personal notes. Entomologists everywhere will deeply regret to hear of the death of Mr. Henry Edwards who loved his favorite studies quite as much as he did the stage and brought to both an ardor and freshness contagious and perennial. "Do mention," writes one of his correspondents, "his unwearying kindness and unfailing help to entomologists who were more ignorant than himself. I owe much to his help and encouragement and shall miss him sorely, though I never saw his face," and these qualities which so endeared him to a large circle of friends were indeed conspicuous in that face.

Two entomologists have recently received appointments at Harvard university though not in the field of entomology: Dr. Roland Thaxter as assistant Professor of cryptogamic botany and Mr. J. G. Jack as Arboretum lecturer for 1891-1892.

PROCEEDINGS OF SOCIETIES.

CAMBRIDGE ENTOMOLOGICAL CLUB.

13 December, 1889.—The 150th meeting of the Club was held at 156 Brattle St., the president in the chair.

Dr. H. A. Hagen said that from a recent study of the species of Anax he thought that *A. concolor* and *A. longipes* were identical and that the number of species so called should be reduced.

Mr. S. H. Scudder, referring to the fossil plant-lice found at Florissant, said that most of the species belonged to the Aphidinae and a very few to the Schizoneurinae. As a whole the species differ notably from modern types in the length of the stigmatic cell and in this respect they agree with the species from amber and a form figured by Brodie from the secondary rocks of England.

Mr. Scudder said that in a psocid from the tertiary rocks of White River, the ocelli were very large and encroached upon the eyes.

He also showed a photograph of the fossil butterfly (Barbarothea) mentioned at the last meeting and called attention to the comparative shortness of the palpi.

10 January, 1890.—The 150th meeting of the Club was held at 156 Brattle St., the president in the chair.

The secretary read a letter from Mr. B. Pickmann Mann of Washington, in which, after wishing the Club and its members a happy and prosperous new year, he detailed an account of the financial condition of volume four of Psyche.

The report of the retiring secretary, Mr. Roland Hayward, was then read, accepted, and ordered to be placed on file. The retiring treasurer, Mr. Samuel Henshaw, then presented his report, which was laid on the table for action, till the report of the auditors should be received.

The Club next proceeded to ballot for officers for 1890, with the following result: President, C. W. Woodworth of Fayetteville, Ark.; Secretary, Roland Hayward; Treasurer, Samuel Henshaw; Librarian, George Dimmock. Members at large of Executive Committee, Holmes Hinckley and Samuel H. Scudder. Messrs. George Dimmock and Samuel Henshaw were elected editors of Psyche.

The retiring president, Mr. Samuel H. Scudder, then read his annual address, entitled, "The work of a decade on fossil insects." (See Psyche, 1890, v. 5, pp. 287-295.)